# Memorandum

**Date**: October 30, 2008 **Telephone**: (916) 654-4679

To: Vice Chair James Boyd, Presiding Member

Chairman Jackalyne Pfannenstiel, Associate Member

From: California Energy Commission – John S. Kessler, Project Manager

1516 Ninth Street

Sacramento, CA 95814-5512

**DOCKET**07-AFC-3

DATE OCT 30 2008

RECD. OCT 30 2008

Subject: CPV Sentinel Energy Project (07-AFC-3) – Second Set of Additional

Testimony to the Final Staff Assessment by Energy Commission

Staff

Enclosed please find the Second Set of Additional Testimony to the Final Staff Assessment by Energy Commission staff for the CPV Sentinel Energy Project (07-AFC-3). This additional testimony has been prepared in response to comments received from the applicant and to clarify the estimate of groundwater recharge time needed to protect the mesquite hummocks vegetative community. The topics of the additional testimony, exhibit numbers, and supporting witnesses are as follows:

Staff's Response to Applicant's Additional Testimony – John Kessler. Staff concurs with the applicant's proposed revisions to SOIL&WATER-8 as provided in their October 29, 2008 filing of Applicant's Additional Testimony and Response to Addendum to Final Staff Assessment by Energy Commission Staff. Staff believes that with this revision adopted by the Committee, that there will be no further changes requested by applicant or staff to the Soil and Water Conditions of Certification.

**Declaration of Martha Goodavish associated with Visual Resources – Exhibit 207.** The declaration was inadvertently left out of Exhibit 207 of staff's October 27, 2008 filing of its Additional Testimony and Addendum to Final Staff Assessment Filed by Energy Commission Staff.

**Soil and Water Resources – Exhibit 213 – John Kessler.** Staff is providing additional testimony to clarify the estimate of infiltration travel time contributing to the overall recharge time needed to protect the mesquite hummocks vegetative community.

### **SOIL AND WATER – EXHIBIT 213 –**

# Testimony of john kessler

# Updated Estimate of Infiltration Time of Water Applied for Groundwater Recharge

Staff is providing additional testimony to clarify the estimate of infiltration travel time contributing to the overall recharge time needed to protect the mesquite hummocks vegetative community. In simple terms, water applied for recharge travels both vertically from the Mission Creek Spreading Grounds on the ground surface to the water table underground, and then horizontally underground from the vicinity of the spreading grounds to the mesquite hummocks. While staff and the applicant agreed during the October 21, 2008 Prehearing Conference that it is appropriate to update the time travel estimate for water infiltrating from the spreading grounds to the water table, staff realized that an explanation for updating the estimate had not been entered into the record.

The estimated infiltration time is based on water level measurement data presented in a letter by Krieger & Stewart, Inc, dated October 7, 2008. In this letter, the depth to groundwater during 2002 to 2004 in an unnamed monitoring well close to the Mission Creek spreading grounds ranged from 555 to 560 feet below ground surface. This is approximately 100 feet deeper than the depth to water value used previously by the project applicant (450 ft) in their calculation of the time required for spread water to reach the groundwater. This 100 foot difference results in approximately one additional month for spread water to reach the groundwater. A constant infiltration rate of 4 feet per day as provided by the Desert Water Agency has been used. The difference in spread water infiltration time that 100 feet of additional vertical travel makes is presented in the equations below -

### Previous Estimate of Infiltration Time

450 ft / 4 ft per day = 112.5 days

112.5 days / 30 days per month = 3.75 months (rounded up to 4 months)

### <u>Updated Estimate of Infiltration Time</u>

550 ft / 4 ft per day = 137.5 days

137.5 days / 30 days per month = 4.58 months (rounded up to 5 months)

In adding one additional month of travel time to account for water applied at the Mission Creek Spreading Grounds to infiltrate to the water table, the resulting total vertical and horizontal travel time for water to reach the mesquite hummocks is 16 months rather than 15 months as previously estimated by the applicant in their filing dated October 16, 2008 and titled Analysis of Pre-charge time to Avoid Negative Impact (Project-specific drawdown) to the Mesquite Hummocks Vegetative Community.

# **DECLARATION OF**

John S. Kessler

I, John S. Kessler, declare as follows:

- 1. I am presently a consultant to the California Energy Commission for the Siting Office of the Energy Facilities Siting Division as a Project Manager.
- 2. A copy of my professional qualifications and experience were included in the FSA, and is incorporated by reference herein.
- I prepared the Second Set of Additional Staff Testimony on Soil and Water Resources for the CPV Sentinel Energy Project based on my independent analysis of the Application for Certification and supplements thereto, data from reliable documents and sources, and my professional experience and knowledge.
- 4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue addressed therein.
- 5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: October 30, 2008 Signed: July D Karrler

At: <u>Sacramento, California</u>

# **DECLARATION OF**

### Martha A. Goodavish

- I, Martha A. Goodavish, declare as follows:
- 1. I am presently employed by Aspen Environmental Group, a contractor to the California Energy Commission, Systems Assessment and Facilities Siting Division, as a Visual Analysis Specialist.
- 2. A copy of m My professional qualifications and experience were included in the FSA, and are is attached hereto and incorporated by reference herein.
- 3. I helped prepare the <u>Additional</u> Staff Testimony on **Visual Resources** for the CPV Sentinel Energy Project based on my independent analysis of the Application for Certification and supplements thereto, data from reliable documents and sources, and my professional experience and knowledge.
- 4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue addressed therein.
- 5. I am personally familiar with the facts and conclusions related in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Dated: October 26, 2008 Signed: Martha Hoodarch

Walnut Creek, California

At:



# BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE STATE OF CALIFORNIA 1516 NINTH STREET, SACRAMENTO, CA 95814 1-800-822-6228 – www.energy.ca.gov

APPLICATION FOR CERTIFICATION FOR THE CPV SENTINEL ENERGY PROJECT BY THE CPV SENTINEL, L.L.C

DOCKET No. 07-AFC-3 PROOF OF SERVICE (Revised 10/24/2008)

<u>INSTRUCTIONS:</u> All parties shall 1) send an original signed document plus 12 copies <u>OR</u> 2) mail one original signed copy AND e-mail the document to the web address below, AND 3) all parties shall also send a printed <u>OR</u> electronic copy of the documents that <u>shall include a proof of service declaration</u> to each of the individuals on the proof of service:

CALIFORNIA ENERGY COMMISSION Attn: Docket No. 07-AFC-3 1516 Ninth Street, MS-15 Sacramento, CA 95814-5512 docket@energy.state.ca.us

#### <u>APPLICANT</u>

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Competitive Power Ventures, Inc.
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### APPLICANT'S CONSULTANT

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### **COUNSEL FOR APPLICANT**

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### INTERESTED AGENCIES

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### **INTERVENORS**

### **ENERGY COMMISSION**

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\*Elena Miller
Public Adviser
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## **DECLARATION OF SERVICE**

I, Hilarie Anderson, declare that on October 30, 2008, I deposited copies of the attached Second Set of Additional Testimony to the Final Staff Assessment by Energy Commission Staff, in the United States mail at Sacramento, CA, with first-class postage thereon fully prepaid and addressed to those identified on the Proof of Service list above.

### OR

Transmission via electronic mail was consistent with the requirements of California Code of Regulations, title 20, sections 1209, 1209.5, and 1210. All electronic copies were sent to all those identified on the Proof of Service list above.

I declare under penalty of perjury that the foregoing is true and correct.

Original signature in Dockets
Hilarie Anderson